

IN THE CLAIMS

Please amend the following claims:

1.(AMENDED) A silicon refining method [, characterized in that it consists] comprising the steps of:

filling a cold inductive crucible (1) with solid silicon;

melting the content of the crucible;

creating, by means of the inductive crucible, a turbulent stirring of the silicon melt (b) by bringing the liquid from the bottom of the crucible to the free surface by ascending along the central axis of the crucible; and

directing a plasma (f) generated by an inductive plasma torch (2) towards the melt surface for a duration enabling elimination of impurities for which the reactive gas (g_r) of the plasma is adapted.

2.(AMENDED) The method of claim 1, [characterized in that] wherein the intensity of the turbulent stirring is a function of the frequency of an electromagnetic field created by the crucible (1).

3.(AMENDED) The method of claim [1 or 2, characterized in that it consists of] 1, wherein the directing step sequentially [using] uses several reactive gases (g_r).

4.(AMENDED) The method of claim 3, [characterized in that] wherein the reactive gases

(g_r) are selected from the group including chlorine, oxygen, hydrogen, and water vapor.

5.(AMENDED) The method of [any of claims 1 to 4, characterized in that it further consists of] claim 1, wherein after purification of the silicon melt (b)[:] further comprising the steps of:

inverting the melt stirring direction; and
injecting, as a reactive gas (g_r) of the plasma, an element enabling doping of the silicon.

6.(AMENDED) The method of claim 5, [characterized in that] wherein the reactive gase (g_r) injected to dope the silicon is hydrogen.

7.(AMENDED) The method of [any of claims 1 to 6, characterized in that] claim 1, wherein the silicon is processed by batches of a volume substantially corresponding to the volume that can be contained in the crucible (1), the crucible not being integrally emptied at the end of the processing of a current batch to form a liquid seed furthering the melting during the next batch.

8.(AMENDED) The method of [any of claims 1 to 7, characterized in that,] claim 1, wherein, during an initial starting phase of the installation, the plasma is used without any reactive gas to heat up the surface of the silicon load contained in the crucible (1), until this load reaches a temperature sufficient to make it conductive, the continuation of the load heating and